



# HEALTHFX

## HEALTH CO-BENEFITS OF GREEN BUILDINGS

HOW DO WE IMPROVE HEALTH, REDUCE ENVIRONMENTAL IMPACTS AND LOWER OPERATING COSTS?

New research from the Harvard T.H. Chan School of Public Health says green-certified buildings are the answer.

### GREEN-CERTIFIED BUILDINGS<sup>1</sup>: ENERGY, HEALTH AND CLIMATE BENEFITS

#### AT THE COUNTRY LEVEL

FOR EVERY **\$100** SAVED ON ENERGY<sup>2</sup> IN INDIA

ANOTHER **\$1220** IS SAVED IN HEALTH AND CLIMATE BENEFITS<sup>3,4</sup>



#### AT THE BUILDING LEVEL



**ENERGY SAVINGS**



**HEALTH AND CLIMATE COST SAVINGS**



**TOTAL SAVINGS**

GREEN-CERTIFIED BUILDINGS SAVE \$2.40 PER SQUARE METER

AND \$31.30 PER SQUARE METER IS GAINED IN HEALTH AND CLIMATE COST SAVINGS

FOR A TOTAL BENEFIT OF \$33.70 OF SAVINGS PER SQUARE METER

### THE IMPACT: INDIA

COMPARED TO "CONVENTIONAL COMMERCIAL BUILDINGS,"<sup>1</sup> THE GREEN-CERTIFIED BUILDINGS STUDIED SAVED

**\$72M** IN ENERGY COSTS<sup>5</sup>

PLUS AN ADDITIONAL

**\$882M**

IN COMBINED HEALTH AND CLIMATE BENEFITS:

**\$39M** FROM AVERTING NEGATIVE IMPACTS OF CLIMATE CHANGE<sup>3</sup>

**\$843M** FROM REDUCTIONS IN AIR POLLUTION RESULTING IN FEWER DEATHS, HOSPITAL VISITS, LOST DAYS OF WORK AND SCHOOL, AND MORE<sup>4</sup>

FOR A TOTAL BENEFIT OF **\$954M SAVED**

FROM 2000-2016<sup>6</sup>

#THEHEALTHFXSTUDY

To learn more about the health co-benefits of green-certified buildings, visit:

**THEHEALTHFXSTUDY.COM**

1 2016 USD, LEED® buildings 2000-2016.

2 All the obtained cost-saving dollar values were converted into 2016 USD, adjusted by the annual Consumer Price Index (CPI) of U.S. city average. BLS, CPI Databases. 2017, Bureau of Labor Statistics.

3 Includes carbon dioxide, methane and nitrous oxide and their associated climate damages. These are economic benefits associated with avoiding the negative consequences of climate change – such as the spread of disease and coastal damage.

4 Includes public health impacts from exposure to ozone and PM<sub>2.5</sub>, including deaths, hospitalizations and asthma attacks avoided.

5 Energy cost savings were calculated based on the prices for each energy type.

6 The study analyzed LEED-certified buildings in the United States, Brazil, Mainland China, Germany, India and Turkey. This accounts for 82% of LEED buildings, and 30% of all green-certified buildings.